

## Claims

We claim:

5 1. A receiver digital circuitry, comprising:  
digital down-converter circuitry configured to mix a digital input signal provided by a  
receiver analog circuitry with an intermediate frequency (IF) local oscillator  
signal to generate a digital down-converted signal; and  
10 digital filter circuitry configured to filter the digital down-converted signal to generate a  
filtered digital signal,  
wherein the receiver analog circuitry resides within a first integrated circuit, and  
wherein the receiver digital circuitry resides within a second integrated circuit, and the  
second integrated circuit couples to the first integrated circuit via a one-bit digital  
interface.

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2. A radio-frequency (RF) apparatus, comprising:  
a first circuit partition, comprising receiver analog circuitry configured to produce a  
digital receive signal from an analog radio-frequency signal; and  
a second circuit partition, comprising receiver digital circuitry configured to accept the  
20 digital receive signal, wherein the first and second circuit partitions are partitioned  
so that interference effects between the first circuit partition and the second circuit  
partition tend to be reduced.